

October 29, 2020



United States Environmental Protection Agency
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303-8960

Attention: Mr. Wesley Hardegree

Re: **Land Use Control Plan (Revision 1.0)**
SMA 5 – Former Pig Iron Foundry
Administrative Order on Consent - Docket # RCRA 04-2012-4255
Bluestone Coke
4200 F.L. Shuttlesworth Drive
Birmingham, Jefferson County, Alabama
USEPA ID No. ALD 000 828 848
Terracon Project No. E1187220

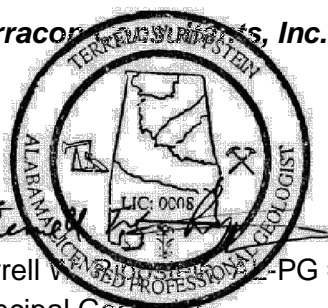
Dear Mr. Hardegree:

On behalf of Bluestone Coke, LLC (Bluestone Coke), Terracon Consultants, Inc. (Terracon) is pleased to submit the *Land Use Control Plan for SMA 5 - Former Pig Iron Foundry* for the above-referenced site. This plan has been prepared in response to the *Remedy for Former Chemical Plant and Former Pig Iron Foundry* letter from the USEPA dated February 23, 2018.

If you should have any questions, please do not hesitate to contact us at (205) 942-1289.

Sincerely,

Terracon Consultants, Inc.


Terrell V. Nowicki
Principal Geologist

Frank M. Nowicki

Frank M. Nowicki
Senior Project Professional

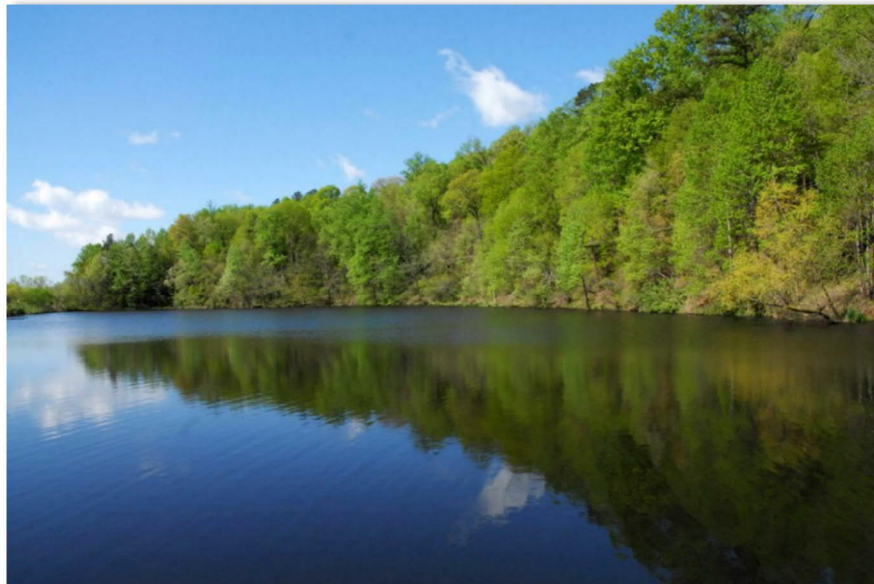
cc: Ms. Meredith Anderson; USEPA Region 4

Land Use Control Plan (Revision 1.0)

SMA 5 – Former Pig Iron Foundry

Bluestone Coke
4200 F.L. Shuttlesworth Drive
Birmingham, Alabama
US EPA ID No. ALD 000 828 848

October 29, 2020
Terracon Project No. E1187220



Prepared for:



Birmingham, Alabama

Prepared by:

Terracon Consultants, Inc.
Birmingham, Alabama

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials



October 29, 2020

Bluestone Coke
4200 F.L. Shuttlesworth Drive
Birmingham, Alabama 35207

Attention: Mr. Don Wiggins

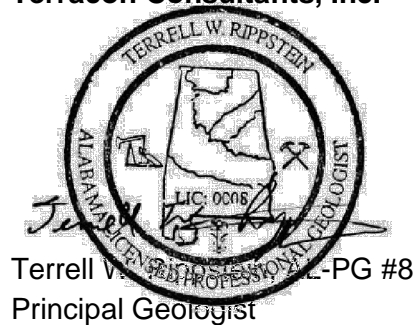
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Dear Mr. Wiggins:

Terracon Consultants, Inc. (Terracon) is pleased to submit this *Land Use Control Plan for SMA 5 - Former Pig Iron Foundry* for the above-referenced site.

Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Terracon Consultants, Inc.



Frank M. Nowicki
Senior Project Professional

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LIST OF ABBREVIATIONS

ADEM	Alabama Department of Environmental Management
AOC	Area of Concern
ANPR	Advanced Notice of Proposed Rulemaking
CAA	Corrective Action Alternative
CAO	Corrective Action Objective
CAP	Corrective Action Plan
CFR	Code of Federal Regulation
cm/sec	centimeter per second
CMI	Corrective Measures Implementation
CMS	Corrective Measure Study
COC	Contaminant of Concern
COPC	Constituent of Potential Concern
DOT	Department of Transportation
EI	Environmental Indicators
ERA	Ecological risk assessment
FCP	Former Chemical Plant
FMC	Five Mile Creek
FWI	Facility Wide Investigation
HHRA	Human Health Risk Assessment
HHRE	Human Health Risk Evaluation
HI	Hazard Index
IM	Interim Measures
IRIS	Integrated Risk Information System
LDA	Land Disposal Area
LDR	Land Disposal Restriction
LUCP	Land Use Control Plan
MCL	Maximum Contaminant Level
NRWQC	National Recommended Water Quality Criteria
Order	Administrative Order on Consent
OSHA	Occupational Safety and Health Administration
PCS	Preliminary Cleanup Standards
PIF	Pig Iron Foundry
PPE	Personal Protective Equipment
PRG	Preliminary Remediation Goal
PVC	Poly Vinyl Chloride
RAGS	Risk Assessment Guidance for Superfund
RCRA	Resource Conservation and Recovery Act
RCRIS	RCRA Information System
PCS	Preliminary Cleanup Standards
RFI	RCRA Facility Investigation

RSL	Regional Screening Levels
SMA	SWMU Management Area
SSL	Soil screening level
SVOC	Semi-volatile Organic Compound
SWMU	Solid Waste Management Unit
TCL	Target Constituent List
TCLP	Toxicity Characteristic Leaching Procedure
TSD	Treatment, Storage, And Disposal
UCL	Upper Confidence Limit
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds

Land Use Control Plan (Revision 1.0)
SMA 5 – Former Pig Iron Foundry
Bluestone Coke
4200 F.L. Shuttlesworth Drive
Birmingham, Alabama
US EPA ID No. ALD 000 828 848

Project No. E1187220
October 29, 2020

1.0 INTRODUCTION/PURPOSE

The Bluestone Coke, LLC (Bluestone Coke) facility is located at 4200 F.L. Shuttlesworth Drive in Birmingham, Jefferson County, Alabama (Figure 1-1). This Land Use Control Plan (LUCP) (Revision 1.0) for SMA 5 has been prepared in response to the *Final (Remedy) Decision for the Former Pig Iron Foundry* from the United States Environmental Protection Agency (US EPA) dated February 2018. A map of the current facility including the 45 Solid Waste Management Units (SWMUs) and six Areas of Concern (AOCs) consolidated into five SWMU Management Areas (SMAs) is included as Figure 1-2. This LUCP is only for SMA 5 – Former Pig Iron Foundry and its associated SWMUs and AOC (Figure 1-3).

SMA 5 contains three SWMUs and one AOC (Figure 1-3). They include:

- SMWU 43 – Pig Machine Slurry Pits
- SWMU 44 – Blast Furnace Ash Boiler Pit
- SWMU 45 – Slag Drying Beds
- AOC C – Former Pig Iron Foundry

1.1 Background

The roots of the facility can be traced back to 1881 when Sloss-Sheffield Steel and Iron Company first began producing pig iron in Birmingham, Alabama. In 1920, where Bluestone Coke sits today, Sloss-Sheffield Steel and Iron Company built two modern coke oven batteries to serve its own needs as well as those of other customers. As Birmingham's steel industry grew, so did the need for furnace coke, which prompted the construction of three more batteries at the site during the 1950s.

As American industry evolved in the ensuing years, so did the operation of the facility. Today, Bluestone Coke is a highly efficient, technologically advanced operation serving a variety of customers in the furnace and foundry markets.

The operation now consists of three batteries with a total of 120 coke ovens which can produce approximately 460,000 tons of coke each year. A highly experienced operating staff provides assurance of adherence to strict operating, environmental, and safety standards.

The original coke manufacturing facility began operation in 1920 as Sloss Sheffield Steel and Iron Company. Beginning in 1952, the company experienced a series of corporate reorganizations and several name changes culminating in a name change to Walter Coke, Inc. in June 2009, and then the purchase of the coke plant assets forming Bluestone Coke, LLC occurring in August 2019. The following operations have occurred at the facility:

- The biological treatment facility (BTF), designed to treat wastewater generated at the facility, was constructed in 1973-74, first received wastewater in 1975 and is still in operation today. SMA 1 includes the BTF Process Area.
- Land Disposal Areas (LDAs) have been used at various times over the life of the facility. Biological sludge, blast furnace sludge, and construction and demolition debris have been placed in the land disposal areas. SMA 2 includes the LDA.
- Coke manufacturing has occurred since 1920, and 120 coke ovens continue to operate. SMA 3 includes the Coke Manufacturing Plant.
- Chemical manufacturing began at the facility in 1948, and all chemical manufacturing operations ceased in 2002. In addition, a mineral wool plant, which manufactured mineral fiber used in the production of ceiling tile and insulating products, was built in late 1947 and was decommissioned in 2010. SMA 4 includes the FCP and the mineral wool piles.
- An iron blast furnace that produced pig iron from iron ore began operation in 1958; blast furnace operations ceased in 1981, and the blast furnace was decommissioned in 1984. SMA 5 includes the Former Pig Iron Foundry (FPIF).

The land around the Bluestone Coke facility is zoned for industrial and residential use, and a significant number of other industrial facilities remain operational in the area. Before 1957, the area was primarily industrial, with a significant number of other facilities, including coke and cement manufacturing plants, pipe manufacturing plants, and limestone quarry operations. Residential neighborhoods were constructed on properties in the area of Bluestone Coke only after 1957 (USEPA, 1990). The most likely future land use for the Bluestone Coke facility is industrial.

A RCRA Section 3008(h) Administrative Order on Consent (the “2012 Order”) with the effective date of September 24, 2012, was signed by Walter Coke and the USEPA. In 2016, ERP contractually assumed the RCRA Order obligation of Walter Coke through bankruptcy

proceedings and the RCRA Section 3008(h) Administrative Order on Consent (the “2016 Order”) was reissued and modified to reflect the name change to ERP Compliant Coke, LLC and was signed by ERP Compliant Coke, LLC and the USEPA. The objectives of the 2016 Order remained the same as previously outlined in the 2012 order. The 2012 Order declared that all of the approved investigation tasks of the RFI Work Plans required by the 1989 Order had been completed by Walter Coke and that the 1989 Order was terminated and no longer in effect. In the 2012 Order, there are 45 SWMUs, 6 AOCs, and 5 SMAs at the facility (Figure 2) listed.

1.2 Corrective Measures Study (CMS) Overview

The *Corrective Measures Study (CMS) SMA-5 – Former Pig Iron Foundry (Revision 1.2)* on April 14, 2017. The purpose of the CMS Report was to summarize the evaluation, analysis, and selection of appropriate corrective measures at SMA 5.

Based on the activities conducted during the CMS for SMA-5, it was determined that:

- The only known contaminated media in SMA 5 is soil.
- The non-cancer remediation threshold for soil was not breached.
- The cancer remediation screening level (10^{-6}) for soil was breached for an industrial setting for several COCs; however, the cumulative risk of the COCs were below the $1E^{-04}$ remediation trigger.
- The cancer and non-cancer remediation thresholds for soil were not breached for a construction setting.
- Leachability from soil to groundwater was determined not to be a threat based on COC soil concentrations and groundwater monitoring conducted around SMA 5.
- The soil contamination is not deemed to be a principal threat in need of active remediation.

Based on the conclusions of the detailed analysis that was performed individually and collectively with respect to six alternatives discussed in the CMS, Alternative 2 - Land Use Controls was recommended as the corrective action alternative (CAA) for SMA 5.

The *Final (Remedy) Decision for the Former Pig Iron Foundry* from the US EPA dated February 2018 indicated that they concurred with the recommendations from the CMS for SMA 5. Section III. Selected Remedy of the US EPA document concluded:

The recommended remedy found in the facility's April 14, 2017, CMS Report and proposed to the public on October 1, 2017, is identified as Alternative 2: Land Use Controls. This alternative can reasonably be concluded to satisfy the Facility-Specific Corrective Action Objectives found in Table 3 of the CMS; therefore, it is US EPA's Final Decision that Alternative 2, which consists of the following components, be the remedy for the Former Pig Iron Foundry.

- Land Use Controls: The Land Use Controls are administrative means to protect current and future human exposure to unacceptable environmental contamination. This protection will be accomplished through the following techniques/components:
 - Land Use Control Plan (LUCP) developed by the Facility (and overseen by EPA)
 - An Environmental Covenant secured under the Alabama Uniform Environmental Covenants Act, Ala. Code §§ 35-19-1 to 35-19-14 (2007 Cum. Supp.)

The following sections describe the objectives and implementation mechanisms for the LUCP.

2.0 LAND USE CONTROLS AND OBJECTIVES

Bluestone Coke maintains responsibility for implementing, enforcing, reporting on, and maintaining land use controls as specified in the following sections. Should Bluestone Coke later transfer these procedural responsibilities to another party by contract, property transfer agreement, or through other means, Bluestone Coke shall retain ultimate responsibility for the remedy integrity.

2.1 Land Use Control Objectives

The objectives of the land use controls as listed in Table 3 of The *Final (Remedy) Decision for the Former Pig Iron Foundry* from the US EPA dated February 2018 are as follows:

- Maintain in perpetuity, land use as industrial, a setting that has been found to be protective for the detected soil concentrations.
- Ensure that industrial/commercial workers, construction workers, and trespassers are not exposed to unacceptable levels of soil contaminants.

2.2 Land Use Controls

2.2.1 Environmental Covenant and Land Use Restrictions

In order to implement deed restrictions as listed in the remedy decision, an Environmental Covenant was drafted in accordance with the Uniform Environmental Covenants Act (ADEM Admin Code r.335-5) and was provided to the USEPA and ADEM prior to recording. The Environmental Covenant includes a survey and legal description for SMA-5 and lists the following land-use restrictions:

- No land use shall occur on the Property other than commercial or industrial land uses;
- No water or groundwater on, from or under the Property (other than piped water from the local public water authority) shall be used for potable or irrigation purposes.

The covenant was recorded at the Jefferson County Probate Court in accordance with the Uniform Environmental Covenants Act (ADEM Admin. Code r.335-5) on October 29, 2019. A copy of the recorded Class I Environmental Covenant is included as [Appendix A](#).

2.2.2 Access Restrictions

Unauthorized access to SMA-5 is restricted through the use of physical barriers. The facility including SMA-5 is completely fenced, and the facility is manned twenty-four hours a day, 365

days a year. Additionally, trespasser warning signs are posted in various locations along the fence.

2.2.3 On-Site Compliance Monitoring

Monitoring of the environmental use restrictions and controls will be conducted annually by Bluestone Coke. The annual inspection form is included as **Appendix B**. The Manager of Technical Services is the facility program point-of-contact designated responsible for implementing the LUCP. The annual field inspection report will be certified by an authorized representative of the company and submitted to the USEPA and ADEM within 30 days of certification. The annual field inspection reports will be used to evaluate the effectiveness of the remedy.

The annual inspection report, submitted to the USEPA and ADEM by Bluestone Coke, will evaluate the status of the institutional controls (ICs) and how any IC deficiencies or inconsistent uses have been addressed. Any deficiencies of land use controls or activities inconsistent with use restrictions, as noted in the annual field inspection report, will be addressed by Bluestone Coke as soon as practicable, but in no case will the process be initiated later than 30 days after Bluestone Coke becomes aware of the breach. Additionally, Bluestone Coke will notify the USEPA and ADEM regarding how Bluestone Coke has addressed or will address the breach within 30 days of sending the USEPA and ADEM notification of the breach.

2.2.4 Notification Procedures

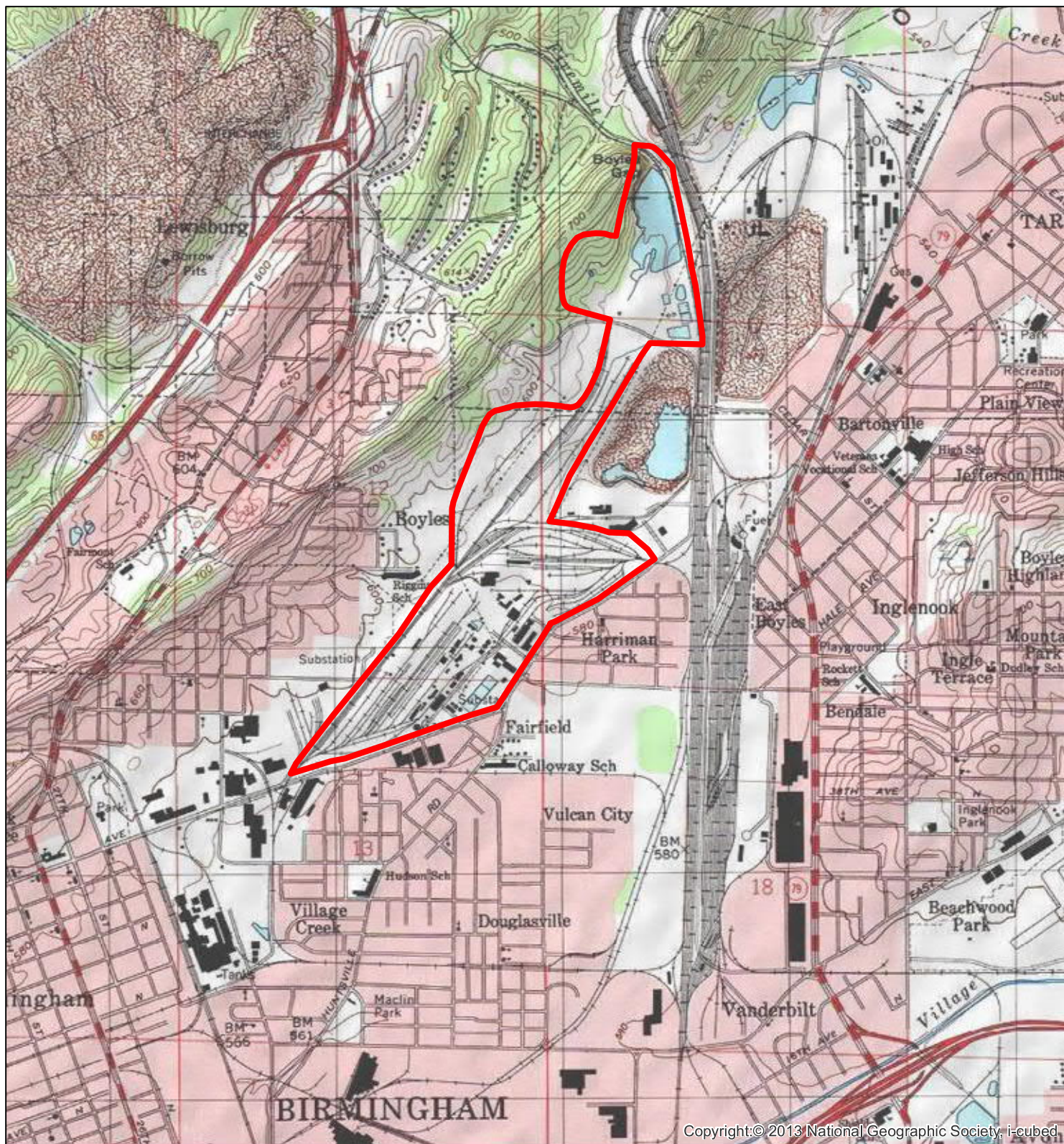
Bluestone Coke will notify the USEPA and ADEM 45 days in advance of any proposed land use changes that are inconsistent with land use control objectives or the selected remedy.

When possible given the timing of the transfer or sale process, Bluestone Coke will provide notice to the USEPA and ADEM at least six (6) months prior to any transfer or sale of SMA-5 so that the USEPA and ADEM can be involved in discussions to ensure that appropriate provisions are included in the transfer terms or conveyance documents to maintain effective ICs. If it is not possible for the facility to notify the USEPA and ADEM at least six (6) months prior to any transfer or sale, then the facility will notify the USEPA and ADEM as soon as possible, but no later than 30 days prior to the transfer or sale of any property subject to ICs.

3.0 DURATION OF LAND USE CONTROLS AND CONCURRENCE

This LUCP was designed in accordance with the *Final (Remedy) Decision for the Former Pig Iron Foundry* from the US EPA dated February 2018. Bluestone Coke retains responsibility for implementing, maintaining, reporting on, and enforcing the land use controls. The controls will be maintained until the concentration of hazardous substances in the soil are at such levels to allow for unrestricted use and exposure. Bluestone Coke shall not terminate or modify Land use Controls, implementation actions, or modify land use without approval by the USEPA and ADEM. Bluestone Coke shall seek prior concurrence before any anticipated action that may disrupt the effectiveness of the land use controls or any action that may alter or negate the need for land use controls. Any re-evaluation of deed restrictions or Land Use Controls will be documented for the Administrative Record.

Figures



Legend

— Facility Boundary

DATA SOURCES:

- Topographic Map: North Birmingham, AL, 7.5 Minutes Quadrangle, 1997

0 1,000 2,000 4,000
Feet



Project No. E1187220

Drawn By: JDF

Reviewed By: TWR

Date: November 2019

Terracon

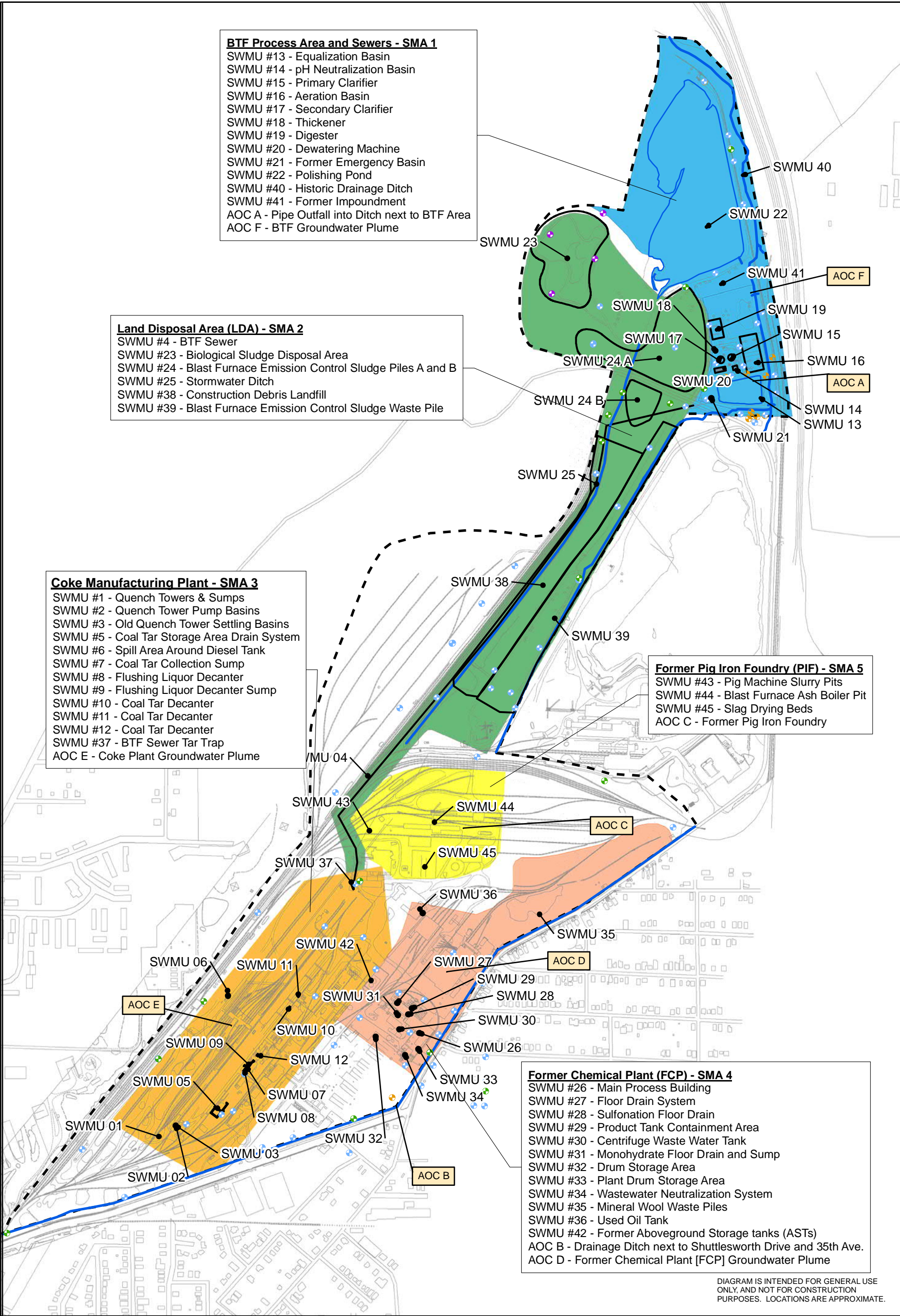
2147 Riverchase Office Road
Birmingham, AL 35244
(205) 942-1289 terracon.com

Facility Location Map

BLUESTONE COKE
3500 35th AVENUE NORTH
BIRMINGHAM, ALABAMA

Figure

1-1



BTF Process Area and Sewers - SMA 1
SWMU #13 - Equalization Basin
SWMU #14 - pH Neutralization Basin
SWMU #15 - Primary Clarifier
SWMU #16 - Aeration Basin
SWMU #17 - Secondary Clarifier
SWMU #18 - Thickener
SWMU #19 - Digester
SWMU #20 - Dewatering Machine
SWMU #21 - Former Emergency Basin
SWMU #22 - Polishing Pond
SWMU #40 - Historic Drainage Ditch
SWMU #41 - Former Impoundment
AOC A - Pipe Outfall into Ditch next to BTF Area
AOC F - BTF Groundwater Plume

Land Disposal Area (LDA) - SMA 2
SWMU #4 - BTF Sewer
SWMU #23 - Biological Sludge Disposal Area
SWMU #24 - Blast Furnace Emission Control Sludge Piles A and B
SWMU #25 - Stormwater Ditch
SWMU #38 - Construction Debris Landfill
SWMU #39 - Blast Furnace Emission Control Sludge Waste Pile

Coke Manufacturing Plant - SMA 3
SWMU #1 - Quench Towers & Sumps
SWMU #2 - Quench Tower Pump Basins
SWMU #3 - Old Quench Tower Settling Basins
SWMU #5 - Coal Tar Storage Area Drain System
SWMU #6 - Spill Area Around Diesel Tank
SWMU #7 - Coal Tar Collection Sump
SWMU #8 - Flushing Liquor Decanter
SWMU #9 - Flushing Liquor Decanter Sump
SWMU #10 - Coal Tar Decanter
SWMU #11 - Coal Tar Decanter
SWMU #12 - Coal Tar Decanter
SWMU #37 - BTF Sewer Tar Trap
AOC E - Coke Plant Groundwater Plume

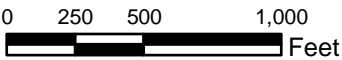
Former Pig Iron Foundry (PIF) - SMA 5
SWMU #43 - Pig Machine Slurry Pits
SWMU #44 - Blast Furnace Ash Boiler Pit
SWMU #45 - Slag Drying Beds
AOC C - Former Pig Iron Foundry

Former Chemical Plant (FCP) - SMA 4
SWMU #26 - Main Process Building
SWMU #27 - Floor Drain System
SWMU #28 - Sulfonation Floor Drain
SWMU #29 - Product Tank Containment Area
SWMU #30 - Centrifuge Waste Water Tank
SWMU #31 - Monohydrate Floor Drain and Sump
SWMU #32 - Drum Storage Area
SWMU #33 - Plant Drum Storage Area
SWMU #34 - Wastewater Neutralization System
SWMU #35 - Mineral Wool Waste Piles
SWMU #36 - Used Oil Tank
SWMU #42 - Former Aboveground Storage tanks (ASTs)
AOC B - Drainage Ditch next to Shuttlesworth Drive and 35th Ave.
AOC D - Former Chemical Plant [FCP] Groundwater Plume

DIAGRAM IS INTENDED FOR GENERAL USE ONLY, AND NOT FOR CONSTRUCTION PURPOSES. LOCATIONS ARE APPROXIMATE.

- Solid Waste Management Areas (SMAs)**
- BTF Process Area and Sewer - SMA 1
 - Land Disposal Area - SMA 2
 - Coke Manufacturing Plant - SMA 3
 - Former Chemical Plant - SMA 4
 - Former Pig Iron Foundry - SMA 5

Note:
1) SWMU - Solid Waste Management Unit
2) Management Area boundaries are approximations
3) AOC - Area of Concern

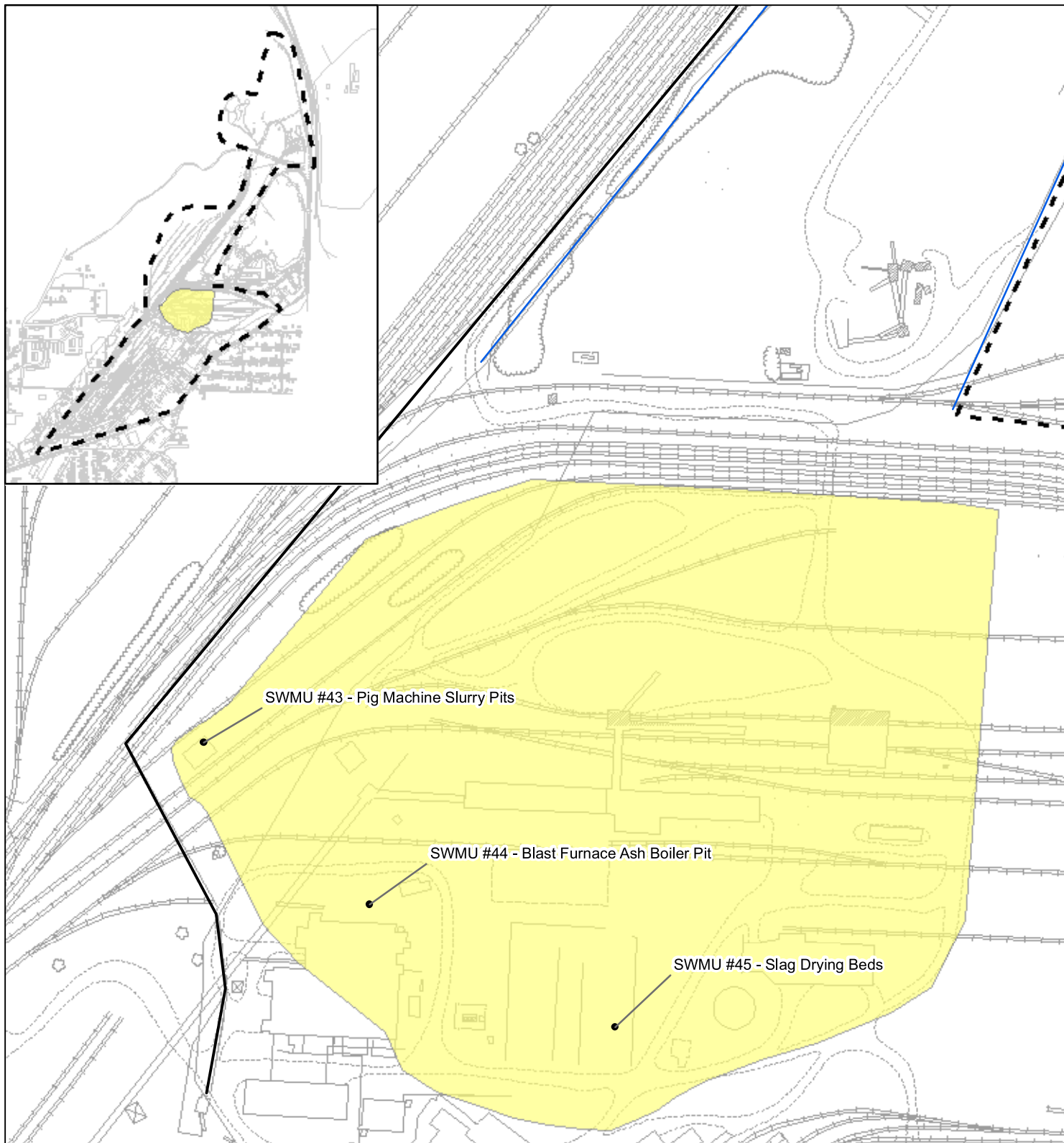


Date:	Nov. 2019
PM:	TWR
Project:	E1187220
Author:	94

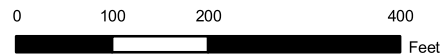
Terracon
110 12th St. North
Birmingham, Alabama 35203
Phone: (205) 942-1289
Fax: (205) 443-5302

SITE MAP
Bluestone Coke
3500 35th Avenue North
Birmingham, AL 35207

FIGURE
1-2



- SMA 5 - Former Pig Iron Foundry
- Facility Boundary
- Base



NOTES:
 - SMA = Soil Management Area
 - SWMU = Solid Waste Management Unit
 - Management Area Boundaries Are Approximations

Project No.	E1187220
Drawn By:	JDF
Reviewed By:	TWR
Date:	November 2019

Terracon
 2147 Riverchase Office Road
 Birmingham, AL 35244
 (205) 942-1289 terracon.com

Former Pig Iron Foundry

BLUESTONE COKE
 3500 35th AVENUE NORTH
 BIRMINGHAM, ALABAMA

Figure
1-3

Appendix A
Class I Environmental Covenant

Clerk: MORRISL

ENVIRONMENTAL COVENANT

ERP Compliant Coke, LLC (hereinafter "Grantor") grants an Environmental Covenant (hereinafter "Covenant") this 26 day of July, 2019, to the following entities pursuant to The Alabama Uniform Environmental Covenants Act, Ala. Code §§ 35-19-1 to 35-19-14 (2014 Cum. Supp.) (hereinafter "the Act" or "Act"), and the regulations promulgated thereunder: the Alabama Department of Environmental Management (ADEM) and the identified holders and other applicable parties: ERP Compliant Coke (hereafter "Holder").

WHEREAS, this instrument is a Covenant developed and executed pursuant to the Act and the regulations promulgated thereunder;

WHEREAS, the Grantor is the owner of certain real property located in the City of Birmingham, Alabama, situated at 3500 35th Avenue North, in Jefferson County, Alabama, which was conveyed to Grantor by deed dated February 12, 2016, and recorded in the Office of the Judge of Probate for Jefferson County, Alabama, under Instrument number 2016022673;

WHEREAS, the real property is held by the Grantor without any interests and encumbrances;

WHEREAS, the real property is subject to enforcement by the U.S. Environmental Protection Agency ("EPA") pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. § 6901, et seq., as amended ("RCRA");

WHEREAS, on July 19, 2016, EPA issued an Administrative Order on Consent, Docket Number: RCRA-04-2016-4250, to ERP Compliant Coke, pursuant to Section 3008(h) of RCRA, 42 U.S.C. § 6928(h) ("AOC");

WHEREAS, for the purposes of implementing the AOC, corrective measures at the real property has been grouped into five (5) Solid Waste Management Unit (SWMU) Management Areas (SMAs): SMA 1 - Biological Treatment Facility, SMA 2 - Land Disposal Area, SMA 3 - Coke Manufacturing Plant, SMA 4 - Former Chemical Plant, and SMA 5 - Former Pig Iron Foundry;

WHEREAS, this Covenant addresses only two (2) of the (5) SMAs: SMA 4 - Former Chemical Plant and SMA 5 - Former Pig Iron Foundry (hereafter, collectively, "Property"), which are the subject of an EPA Response to Comments/Final Decision issued on February 22, 2018, ("Final Decision");

WHEREAS, the Property is more particularly described in Exhibit A (attached) to this document;

SMA 4

A parcel of land situated in Section 12 and 13, Township 17 south, Range 3 West, and Section 7, Township 17 South, Range 2 west, Jefferson County,

Alabama, also being a part of Blocks 1, 2, and 3 of Washington Park as recorded in the Map Book 9 page 66 in the Office of the Judge of Probate in Jefferson County, Alabama and being more particularly described as follows: Commence at a ½" rebar at the SW corner of Lot 2A of North Birmingham Homes as recorded in Map Book 174 Page 50 in the Office of the Judge of Probate in Jefferson County, Alabama; thence N 00°02'53" E along the west line of said Lot 2A a distance of 497.73 feet to a ½" rebar; thence S 77°14'06" E leaving said Lot 2A a distance of 2925.61 feet to the POINT OF BEGINNING; thence S 54°08'57" E a distance of 742 feet more or less to the northwesterly right-of-way of F.L. Shuttlesworth Drive; thence N 32°17'45" E along said right-of-way a distance of 1059.73 feet to a point of curve to the right having a central angle of 29°58'38" and a radius of 312.94 feet, said curve subtended by a chord bearing N 47°17'04" E and a chord distance of 161.87 feet; thence along the arc of said curve and along said right-of-way a distance of 163.73 feet; thence N 62°16'23" E along said right-of-way a distance of 646.41 feet to a point of curve to the left having a central angle of 08°48'04" and a radius of 930.37 feet, said curve subtended by a chord bearing N 57°52'21" E and a chord distance of 142.77 feet; thence along the arc of said curve and along said right-of-way a distance of 142.91 feet; thence N 53°28'19" E along said right-of-way a distance of 700.18 feet to a point of intersection of said right-of-way and a fence; thence N 36°20'49" W leaving said right-of-way and along said fence a distance of 39 feet more or less to a fence corner; thence N 53°39'11" E along said fence a distance of 35 feet more or less to a fence corner; thence N 43°40'24" W and leaving said fence a distance of 64.70 feet to a point of curve to the left having a central angle of 45°53'11" and a radius of 102.38 feet, said curve subtended by a chord bearing N 66°36'59" W and a chord distance of 79.82 feet; thence along the arc of said curve a distance of 82.00 feet; thence N 89°33'35" W a distance of 75.64 feet to a point of curve to the left having a central angle of 31°00'26" and a radius of 161.55 feet, said curve subtended by a chord bearing S 74°56'12" W and a chord distance of 86.36 feet; thence along the arc of said curve a distance of 87.43 feet; thence S 59°26'00" W a distance of 154.58 feet to a point of curve to the right having a central angle of 16°42'24" and a radius of 549.39 feet, said curve subtended by a chord bearing S 67°47'11" W and a chord distance of 159.63 feet; thence along the arc of said curve a distance of 160.19 feet; thence S 76°08'23" W a distance of 311.27 feet; thence S 79°41'34" W a distance of 141.22 feet; thence N 89°49'30" W a distance of 146.48 feet; thence S 67°48'53" W a distance of feet; thence S 18°46'45" W a distance of 248.83 feet; thence S 26°05'28" W a distance of 91.92 feet; thence S 37°55'53" W a distance of 732.67 feet to the POINT OF BEGINNING. Said parcel of land contains 35.13 acres, more or less.

SMA 5

A parcel of land situated in Section 12, Township 17 south, Range 3 West, and Section 7, Township 17 South, Range 2 west, Jefferson County, Alabama, and being more particularly described as follows: Commence at a 1/2" rebar at the SW corner of Lot 2A of North Birmingham Homes as recorded in Map Book 174 Page 50 in the Office of the Judge of Probate in Jefferson County, Alabama; thence N

00°02'53" E along the west line of said Lot 2A a distance of 497.73 feet to a 1/2" rebar; thence N 76°58'03" E leaving said Lot 2A a distance of 3114.75 feet to the POINT OF BEGINNING; thence S 87°39'56" E a distance of 320.23 feet; thence S 02°47'50" W a distance of 298.27 feet; thence S 71°44'33" E a distance of 103.03 feet; thence S 83°24'40" E a distance of 70.39 feet; thence N 26°52'01" E a distance of 108.60 feet; thence N 04°38'51" E a distance of 598.06 feet; thence N 81°01'32" W a distance of 86.78 feet; thence N 86°56'46" W a distance of 589.94 feet; thence S 70°00'11" W a distance of 254.75 feet; thence S 40°15'20" W a distance of 306.33 feet; thence S 51°39'12" W a distance of 108.54 feet; thence S 04°13'27" E a distance of 21.18 feet; thence S 23°48'39" E a distance of 53.84 feet; thence S 57°09'33" E a distance of 24.76 feet; thence S 27°08'13" E a distance of 129.30 feet to the POINT OF BEGINNING. Said parcel of land contains 18.10 acres, more or less.

WHEREAS, releases of hazardous constituents, including but not limited to, polycyclic aromatic hydrocarbons (e.g., benzo(a)pyrene), and volatile organics (e.g., benzene) occurred on the Property; Specifically:

- SMA 4: The risk assessment limited its risk analyses to those exposures expected in an industrial setting (i.e., industrial/commercial workers and construction workers). Because the land use assumption in both the risk assessment and the selected remedy is that the property will remain industrial, action is needed to ensure that land use does not inadvertently and/or unknowingly become residential in the future. In addition, constituents detected in environmental media above cleanup levels for an industrial/commercial setting include, but are not limited to, the following:

Surficial Soil <ul style="list-style-type: none"> ▪ Benzo(a)anthracene ▪ Benzo(a)pyrene ▪ Benzo(b)fluoranthene 	<ul style="list-style-type: none"> ▪ Dibenzo(a,h)anthracene ▪ Indeno(1,2,3-cd)pyrene ▪ Arsenic ▪ Chromium
Subsurface Soil <ul style="list-style-type: none"> ▪ Benzene ▪ Chlorobenzene 	<ul style="list-style-type: none"> ▪ Toluene ▪ Benzo(a)pyrene
Groundwater <ul style="list-style-type: none"> ▪ Vinyl Chloride ▪ Methylene Chloride ▪ Cis-1,2-Dichloroethene ▪ Benzene ▪ 1,2-Dichloroethane ▪ Trichloroethene ▪ Toluene ▪ Chlorobenzene 	<ul style="list-style-type: none"> ▪ 1,4-Dioxane ▪ 1,2,4-Trichlorobenzene ▪ 1,4-Dichlorobenzene ▪ Pentachlorophenol ▪ Naphthalene ▪ Benzo(a)anthracene ▪ Benzo(a)pyrene ▪ Benzo(b)fluoranthene ▪ Indeno(1,2,3-cd)pyrene ▪ Dibenzo(a,h)anthracene

- **SMA 5:** Although the risk levels identified in the Baseline Risk Assessment did not exceed the levels the EPA has identified as triggering the need for remediation under current land use, the risk assessment limited its risk analyses to those exposures expected in an industrial setting (i.e., industrial/commercial workers and construction workers). Because the land use assumption in both the risk assessment and the selected remedy is that the property will remain industrial, action is needed to ensure that land use does not inadvertently and/or unknowingly become residential in the future.

Based on groundwater sampling conducted around SMA 5 during previous investigations, there has been no indication that drinking water standards (aka maximum contaminant levels (MCL)) have been exceeded at SMA 5.

WHEREAS, in the Final Decision, EPA selected a corrective measure for the Property, providing in part for the following actions:

- **SMA 4: In-Situ Soil Source Area Treatment/In-Situ Groundwater Treatment:** Chemicals or bacteria (e.g., zero valent iron, yeast extract, micronutrients, potassium permanganate, etc.) will be used with the purpose of helping prevent any further release of contaminants from the soil to the groundwater and aiding in advancing the groundwater remediation.
- **SMA 4: Groundwater Removal and Treatment:** The hydraulic control well network, which was installed under an Interim Measures in 2013 to control the VOC groundwater plume and currently consists of 6 extraction wells, will continue.
- **SMA 4: Groundwater Monitoring:** Long-term groundwater monitoring will occur to assess the effectiveness of the overall remediation system.
- **SMA 4/SMA 5: Land Use Control Plan (LUCP):** A LUCP will be established to protect workers, contractors, public from exposure to contaminated environmental media.

WHEREAS, pursuant to the Final Decision and the AOC, the Grantor agreed to perform operation and maintenance activities at the Property to address the effects of the releases, which includes controlling exposure to the hazardous wastes, hazardous constituents, hazardous substances, pollutants, or contaminants;

WHEREAS, due to the releases, the exposure pathways of concern include groundwater and soil; the exposure routes of concern include inhalation, ingestion and direct contact;

WHEREAS, hazardous wastes, hazardous constituents, hazardous substances, pollutants, or other contaminants remain on the Property above levels protective for unrestricted land use (i.e., residential), industrial/commercial use without administrative

controls, and groundwater use (i.e., potable groundwater use);

WHEREAS, the Final Decision requires institutional controls to be implemented to address the effects of the releases and to protect the remedy so that exposure to the hazardous waste, hazardous constituents, hazardous substances, pollutants, or contaminants is controlled by restricting the use of the Property and the activities on the Property;

WHEREAS, the purpose of this Covenant is to ensure protection of human health and the environment by placing restrictions on the Property in accordance with the Final Decision and the AOC;

WHEREAS, further information concerning the releases and the activities to correct the effects of the releases may be obtained by contacting the Chief, RCRA Programs and Cleanup Branch EPA - Region 4, or his or her designated representative, at 61 Forsyth Street, S.W. Atlanta, Georgia, 30303; or Chief, Land Division, ADEM, or his or her designated representative, at 1400 Coliseum Boulevard, Montgomery, Alabama, 36110;

WHEREAS, the Administrative Record concerning the Property is located at:

United States Environmental Protection Agency
Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303

NOW, THEREFORE, Grantor hereby grants this Covenant to ADEM and the identified Holders, and declares that the Property shall hereinafter be bound by, held, sold, used, improved, occupied, leased, hypothecated, encumbered, and/or conveyed subject to the following requirements set forth in Paragraphs 1 through 3 below:

1. **DEFINITIONS**

Owner. "Owner" means the Grantor of the Property, its successors and assigns in interest.

Holder. The "Holder" means the Grantee of the Property, its successors and assigns in interest.

2. **USE RESTRICTIONS**

The following use restrictions apply to the Property - unless written approval is first obtained by EPA:

- The Property is hereby restricted to commercial and/or industrial land use only, as those terms are currently defined or may be

defined in the future by deed notices/restrictions and/or zoning ordinance(s) of the City of Birmingham, County of Jefferson, or any other local government entity with jurisdiction and authority to regulate the land use at the Property.

- To control commercial and/or industrial land use exposures to known or suspected soil contamination remaining at the Property, a Land Use Control Plan (LUCP) shall be developed by the Holder and approved by EPA to protect workers, contractors, utility workers, etc. All surface or subsurface demolition, excavation, drilling, utility work or other activities shall be performed in accordance with the EPA-approved LUCP.
- Except for EPA-approved groundwater sampling, investigations or remedial (cleanup) activities, no groundwater at the Property shall be used for potable or non-potable purposes. While groundwater cleanup occurs, construction of habitable buildings directly over the groundwater plume's core footprint shall only happen after consultation with and approval from the EPA. This pre-construction review/approval is to ensure that, prior to the satisfactory completion of groundwater remediation, construction specifications (i.e., vapor intrusion mitigation strategies) are not needed to eliminate potential vapor intrusion from volatile contaminants remaining in groundwater at the time of the future construction.

3. **GENERAL PROVISIONS**

- A. **Restrictions to Run with the Land.** This Covenant runs with the land pursuant to Ala. Code § 35-19-5 (2014 Cum. Supp.); is perpetual, unless modified or terminated pursuant to the terms of this Covenant pursuant to Ala. Code § 35-19-9 (2014 Cum. Supp.); is imposed upon the entire Property unless expressly stated as applicable only to a specific portion thereof; inures to the benefit of and passes with each and every portion of the Property; and binds the Grantor, the Holder, all persons using the land, all persons, their heirs, successors and assigns having any right, title or interest in the Property, or any part thereof who have subordinated those interests to this Covenant, and all persons, their heirs, successors and assigns who obtain any right, title or interest in the Property, or any part thereof after the recordation of this Covenant.
- B. **Notices Required.** In accordance with Ala. Code § 35-19-4(b) (2014 Cum. Supp.), the Grantor shall send written notification, pursuant to Section J, below, following transfer of a specified interest in, or concerning proposed changes in use of, applications for building permits for, or proposals for any site work affecting the contamination on, the Property. Said notification shall be sent within fifteen (15) days of each event listed in this Section.
- C. **Registry/Recordation of Environmental Covenant: Amendment: or Termination.** Pursuant to Ala. Code § 35-19-12(b) (2014 Cum. Supp.), this Covenant and any amendment or termination thereof, shall be contained in

ADEM's registry for environmental covenants. After an environmental covenant, amendment, or termination is filed in the registry, a notice of the covenant, amendment, or termination may be recorded in the land records in lieu of recording the entire covenant in compliance with § 35-19-12(b). Grantor shall be responsible for filing the Environmental Covenant within thirty (30) days of the final required signature upon this Environmental Covenant.

- D. **Compliance Certification.** In accordance with Ala. Code § 35-19-4(b) (2014 Cum. Supp.), the Grantor shall submit an annual report to the Chief of the EPA RCRA Programs and Cleanup Branch and the Chief of the ADEM Land Division, on the anniversary of the date this Covenant was signed by the Grantor. Said report shall detail the Grantor's compliance, and any lack of compliance, with the terms of the Covenant.
- E. **Right of Access.** The Grantor hereby grants EPA, ADEM; EPA and ADEM's agents, contractors and employees; the Grantor's agents, contractors and employees; and any Holders the right of access to the Property for implementation or enforcement of this Covenant.
- F. **EPA Reservations.** Notwithstanding any other provision of this Covenant, EPA retains all of its access authorities and rights, as well as all of its rights to require additional land/water use restrictions, including enforcement authorities related thereto, under RCRA and any other applicable statute or regulation.
- G. **Representations and Warranties.** Grantor hereby represents and warrants to the other signatories hereto:
- i) That the Grantor has the power and authority to enter into this Covenant, to grant the rights and interests herein provided and to carry out all obligations hereunder;
 - ii) That the Grantor is the sole owner of the Property and holds fee simple title which is free, clear and unencumbered;
 - iii) That the Grantor has identified all other parties that hold any interest (e.g., encumbrance) in the Property and notified such parties of the Grantor's intention to enter into this Covenant;
 - iv) That this Covenant will not materially violate, contravene, or constitute a material default under any other agreement, document, or instrument to which Grantor is a party, by which Grantor may be bound or affected;
 - v) That this Covenant will not materially violate or contravene any zoning law or other law regulating use of the Property;

- vi) That this Covenant does not authorize a use of the Property which is otherwise prohibited by a recorded instrument that has priority over the Covenant.

H. **Compliance Enforcement.** In accordance with Ala. Code § 35-19-11(b) (2014 Cum. Supp.), the terms of the Covenant may be enforced by the parties to this Covenant; any person to whom this Covenant expressly grants power to enforce; any person whose interest in the real property or whose collateral or liability may be affected by the alleged violation of the Covenant; or a municipality or other unit of local government in which the real property subject to the Covenant is located, in accordance with applicable law. The parties hereto expressly agree that EPA or ADEM has the power to enforce this Covenant. Failure to timely enforce compliance with this Covenant or the use or activity limitations contained herein by any person shall not bar subsequent enforcement by such person and shall not be deemed a waiver of the person's right to take action to enforce any non-compliance. Nothing in this Covenant shall restrict EPA, ADEM, or the Grantor, from exercising any authority under applicable law.

I. **Modifications/Termination.** Any modifications or terminations to this Covenant must be made in accordance with Ala. Code §§ 35-19-9 and 35-19-10 (2014 Cum. Supp.).

J. **Notices.** Any document or communication required to be sent pursuant to the terms of this Covenant shall be sent to the following persons:

EPA

Chief, RCRA Programs and Cleanup Branch
US EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303

ADEM

Chief, Land Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, AL 36110

Grantor/Holder

ERP Compliant Coke, LLC
3500 35th Avenue North
Birmingham, Alabama 35207
Attn: Don Wiggins

- K. **No Property Interest Created in EPA or ADEM.** This Covenant does not in any way create any interest by EPA or ADEM in the Property that is subject to the Covenant. Furthermore, the act of approving this Covenant does not in any way create any interest by EPA or ADEM in the Property in accordance with Ala. Code § 35-19-3(b) (2014 Cum. Supp.).
- L. **Severability.** If any provision of this Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.
- M. **Governing Law.** This Covenant shall be governed by and interpreted in accordance with the laws of the State of Alabama.
- N. **Recordation.** In accordance with Ala. Code § 35-19-8(a) (2014 Cum. Supp.), Grantor shall record this Covenant and any amendment or termination of the Covenant in every county in which any portion of the real property subject to this Covenant is located. Grantor agrees to record this Covenant within fifteen (15) days after the date of the final required signature upon this Covenant.
- O. **Effective Date.** The effective date of this Covenant shall be the date upon which the fully executed Covenant has been recorded, in accordance with Ala. Code § 35-19-8(a) (2014 Cum. Supp.).
- P. **Distribution of Environmental Covenant.** Within fifteen (15) days of filing this Covenant, the Grantor shall distribute a recorded and date stamped copy of the recorded Covenant in accordance with Ala. Code § 35-19-7(a) (2014 Cum. Supp.). However, the validity of this Covenant will not be affected by the failure to provide a copy of the Covenant as provided herein.
- Q. **ADEM References.** All references to ADEM shall include successor agencies, departments, divisions, or other successor entities.
- R. **EPA References.** All references to EPA shall include successor agencies, departments, divisions, or other successor entities.
- S. **Grantor References.** All references to the Grantor shall include successor agencies, departments, divisions, or other successor entities.

Grantor has caused this Environmental Covenant to be executed pursuant to The Alabama Uniform Environmental Covenants Act, on this 26th day of July, 2019.

IN TESTIMONY WHEREOF, the parties have hereunto set their hands this the day and year first above written.

GRANTOR/HOLDER

This Environmental Covenant is hereby approved by ERP Compliant Coke, LLC Alabama this 26 day of JULY, 2019.

By: **ERP Compliant Coke, LLC**

By: Bill Potter

Name: Bill Potter

Title: VP and General Manager

Grantor

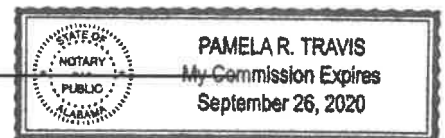
STATE OF Alabama)
)
COUNTY OF Jefferson)

I, Pamela R. Travis, a Notary Public in and for said County in said State or Commonwealth, hereby certify that Bill Potter whose name as VP and General Manager of ERP Compliant Coke, LLC [Grantor] is signed to the foregoing conveyance and who is known to me, acknowledged before me on this day that, being informed of the contents of the conveyance, (s)he, as such officer and with full authority executed the same voluntarily for and as the act of said corporation.

Given under my hand this the 26th day of July, 2019

Notary Public: Pamela R. Travis

My Commission Expires:



Carol J. Monell

Date _____

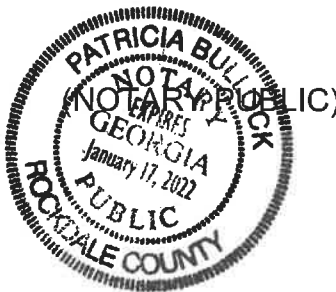
EPA Region 4

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Parillo



January 17, 2022

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

This Environmental Covenant is hereby approved by the State of Alabama this 15th day of October, 2019.

By: _____

Stephen Cobb
Chief, Land Division
Alabama Department of Environmental Management

State of Alabama}

Montgomery, County}

I, the undersigned Notary Public in and for said County and State, hereby certify that Stephen Cobb, whose name as Chief, Land Division, Alabama Department of Environmental Management is signed to the foregoing conveyance, and who is known to me, acknowledged before me on this day that, being informed of the contents of the conveyance, he approved the same voluntarily on the day the same bears date and with full authority to do so.

Given under my hand and official seal this 15 day of October, 2019

Graci Roberson
Notary Public

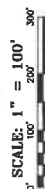
My Commission Expires: 1-30-23

EXHIBIT A

EXHIBIT

DRAWN BY:	RES
CHECKED BY:	RYC
PROJECT No.:	TER9003
CAD FILE:	TER9003 WALTER CONCL.dwg
SCALE:	1" = 100'

REVISIONS



NOTE:

[illegible]

27-00000

SW CORNER
LOT 2A
NORTH BIRMINGHAM HOMES
#174 PQ 80
12" REBAR

54.087
7-5970-0

Appendix B
Land Use Control Annual Inspection Form



LAND USE CONTROL ANNUAL INSPECTION FORM

SMA 5- Former Pig Iron Foundry

Name of Inspector: _____

Date of Inspection: _____

Verification of Land Use Controls

(Indicate with ✓ if listed land use control is being accomplished. Note deficiencies in space provided below.)

- Verify no residential land use is occurring on property _____
- Verify no water or groundwater on, from, or under the Property (other than piped water from the local public water authority) is used for potable or irrigation purposes _____
- Verify boundary fence is intact and in good condition _____
- Verify trespasser warning signs are intact and in good condition _____

Describe Deficiencies to Land Use Controls

(Use space below to describe deficiency, location, and corrective action)



Describe Any Needed Expansion (s) Beyond the Current/Existing Land Use Controls

(Use space below to propose/describe any newly discovered or previously unknown contamination encountered that might not be adequately be addressed by the existing LUCP)

Certification of Inspection

The information submitted herein, to the best of my knowledge and belief, is true, accurate, and complete.

Name: _____

Signature:_____ Date:_____

Authorized Representative of the Company: _____

Signature:_____ Date:_____